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Infix to Prefix

→ Algorithm used-

..ϒ Post fix-

Step 1: Add ")" to the end of the infix expression

Step 2: Push (onto the stack

Step 3: Repeat until each character in the infix notation is scanned.

— If a is encountered, pust it on stack.

— If an operant is encountered, add it postfix expression

— IF a ")" is encountered, then

a. Repeatedly pop from stack and add it to the postfix expression until a "(" is encountered.

b. Discard the "(". That is, remove the (from stack and do not add it to the postfix expression

— IF an operator O is encountered, then,

a. Repeatedly pop from stack and add each operator (popped from stack) to the postfix expression which has the same precedence or a higher precedence than O.

b. Push the operator to the stack.

..ϒ [END OF IF]

Step 4: Repeatedly pop from the stack and add it to the postfix expression until the stack is empty.

Step 5 : EXIT

∴ Prefix

Step 1 : Reverse the infix string. Note that while reversing the string you must interchange left and right parenthesis.

Step 2 : Obtain the postfix expression of the infix expression step 1.

Step 3 : Reverse the postfix expression to get the prefix expression.